EXHIBIT 2

1   UNITED STATES DISTRICT COURT

2   NORTHERN DISTRICT OF CALIFORNIA

3   SAN FRANCISCO DIVISION

4

5   ORACLE AMERICA, INC.

6   Plaintiff,

7   vs.   No. 3:10-cv-03561-WHA

8   GOOGLE, INC.,

9   Defendant.

10   _____

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14   VIDEOTAPED DEPOSITION OF OWEN ASTRACHAN, Ph.D.

15   San Francisco, California

16   Monday, March 14, 2016

17   Volume I

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21   REPORTED BY:

22   REBECCA L. ROMANO, RPR, CSR No. 12546

23   JOB NO. 2241710

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25   PAGES 1 - 184

Page 1

1 statement is a little open. If -- I will try to
2 answer a question of, is it possible that people
3 believe so there's a market for Java SE on phones;
4 yes, that's a possibility.
5   Q. (By Ms. Hurst) Well, isn't it possible
6 that there was, in fact, a potential market for SE
7 on phones in the mid-2000s?
8   MR. KAMBER: Objection to form.
9   THE DEPONENT: I don't know that.
10   Q. (By Ms. Hurst) Right. But you can't
11 tell me that's untrue, can you?
12   MR. KAMBER: Objection to form.
13   THE DEPONENT: I can't tell you that
14 there was a market, and I cannot tell you that
15 there was not a market. I can tell you with
16 reasonable confidence that there was not a
17 widespread use of phones running Java SE in the
18 mid-2000s.
19   MS. HURST: Good time for a break.
20   THE VIDEOGRAPHER: This marks the end of
21 Media No. 3, in the deposition of the Dr. Owen
22 Astrachan. We are going off the record at 2:51.
23   (Recess taken.)
24   THE VIDEOGRAPHER: We are back on the
25 record at 3:18 p.m. This marks the beginning of

Page 154

1 Media No. 4 in the deposition of
2 Dr. Owen Astrachan.
3   Q. (By Ms. Hurst) Dr. Astrachan, have you
4 talked to any of the other experts who have offered
5 reports in this case in connection with your work?
6   A. No, I have not spoken with them.
7   Q. Do you agree that the Java API and the
8 Java language are not the same thing?
9   A. Yes, I agree that they are not the same
10 thing.
11   Q. Do you agree that the Java API is not
12 part of the grammar of the Java language?
13   A. I think that's a fair statement, that the
14 grammar is separate than the API.
15   Q. Is it your view that the Java API must be
16 made freely available on any terms simply because
17 the language is freely available?
18   MR. KAMBER: Objection to form.
19   THE DEPONENT: I don't think I have taken
20 a position on how the API should be made available.
21 I do understand that the Java language is freely
22 available to anyone, and I have taken a position
23 that some parts of the API are required to do the
24 language.
25   So I think it's fair that those parts

Page 155

1 that are essentially so core and essential to the
2 language, that they should also be freely
3 available, since the language itself is, but I have
4 not taken a position on the APIs themselves.
5   In the current case, I understand that
6 the Court has held that the APIs are, in fact,
7 copyrighted and the question here is whether
8 that's -- the use in Android is a fair use. So I
9 accept that there is a copyright hold on that --
10 "hold" is the wrong word -- and that the licensing
11 would then depend on the copyright holder in terms
12 of how they wanted to make those available.
13   Q. (By Ms. Hurst) All right. And let's
14 call -- for purposes of our discussion now, if it's
15 all right with you, let's call those limitations,
16 that you have just described that may be required
17 by the language, technical constraints. Is that
18 all right with you if we use that language?
19   A. Okay.
20   Q. In your opening report, did you do an
21 analysis of technical constraints on the API that
22 were imposed that the Java programming language?
23   A. In my current report, I did not do a
24 technical analysis of those technical constraints.
25   Q. All right. And have you seen that

Page 156

1 there's a chart prepared by Dr. Reinhold that was
2 included in Dr. Schmidt's rebuttal report that sets
3 out a detailed technical analysis of any
4 constraints imposed upon the Java API by the Java
5 programming language?
6   A. Yes, I have seen that.
7   Q. And have you made any effort to duplicate
8 or verify or otherwise analyze that chart?
9   A. No, I have not tried to duplicate. I
10 have looked at the chart.
11   Q. And, as you sit here today, do you have
12 any opinions on the accuracy of that chart?
13   A. I think, from a technical perspective,
14 that that chart represents what it says correctly.
15   Q. And is -- do you have any reason to doubt
16 that that chart is a complete statement of the
17 technical constraints imposed upon the Java API by
18 the programming language?
19   MR. KAMBER: Objection to form.
20   THE DEPONENT: I think that there's a
21 spectrum on what those technical constraints would
22 be. I know that the original trial Dr. Reinhold
23 talked about 60-some-odd classes that were going to
24 be required to implement the language and that
25 others have taken a position that, well, there

Page 157

40 (Pages 154 - 157)

1 actually is more, but that's -- and you have called
2 those technical constraints, and in the chart you
3 can analyze those technical constraints from
4 looking at what's needed to load specific things.
5 But I think the idea that some language -- some
6 packages are more important than others, that's
7 perhaps open to some interpretation on what that
8 spectrum would be. But I take it that the chart
9 that Dr. Reinhold provided that is in Dr. Schmidt's
10 report is an actual reflection of the technical
11 constraints that are analyzed there, which is a
12 long answer.
13   Q. (By Ms. Hurst) Yeah. And I don't think
14 it's quite the answer to my question, right?
15   I'm asking you if there -- as you sit
16 here today, can you identify anything specific in
17 the Java API that is constrained by the language
18 that is not expressed in that chart?
19   A. No, I can't give you any of that
20 information today.
21   Q. All right. Now, you offered the opinion
22 that the Android platform is transformative of the
23 underlying work, right?
24   A. That's correct.
25   Q. And when you say it's transformative of

1 the underlying work, what work are you referring
2 to?
3   A. In this case, I have been asked to write
4 about the 37 APIs from the declaring code
5 perspective. So that's what I understand is at
6 issue here, the declaring code which fits with the
7 structure sequence and organization. And that
8 declaring code, with its associated SSO, is what I
9 wrote about as having been transformed by its use
10 on the Android platform.
11   Q. All right. Was the java platform
12 transformed by Android's use of the 37 API packages
13 from Java SE and Android?
14   A. I don't think I've written about whether
15 the java platform was transformed. I think what I
16 wrote about is whether Android represents a
17 transformation in use of the software. And so
18 these particular APIs, declaring code and SSO, were
19 transformed because Android is a different platform
20 in a different hole than Java SE.
21   So to answer your question, I don't think
22 I wrote about whether Java SE as a whole was
23 transferred. I wrote about the whether the
24 declaring code represented a transformative use of
25 that declaring code.

1   Q. All right. And have you offered an
2 opinion about whether the Java SE API in its
3 entirety was transformed by Android's use of the
4 37 API packages --
5   MR. KAMBER: Objection.
6   Q. (By Ms. Hurst) -- in Android?
7   MR. KAMBER: Objection to form.
8   Q. (By Ms. Hurst) I might have been
9 redundant there by saying Android twice, but did
10 you understand the question?
11   A. I think the question is, have I opined on
12 whether Android's use of the 37 declarations in
13 APIs transformed Java SE as a whole? I think
14 that's the question.
15   Q. Yes.
16   A. And I don't believe I have written or
17 spoken about that whether that use has transformed
18 Java SE.
19   Q. What is the standard that you have used
20 in offering your view that Android is a
21 transformation of the 37 packages? What's the
22 definition of transformative that you have used?
23   A. I have used an understanding of some
24 previous cases that are relevant, from a fair use
25 perspective, that I have used in my courses and

1 spoken to counsel about, as those are -- have been
2 construed by the courts as transformative uses, and
3 then tried to understand why that was
4 transformational and then applied that kind of
5 reasoning to the situation here.
6   I was not given a sequence of five or ten
7 things to look out for, but by looking at those
8 other cases that involved software and fair use,
9 I -- I tried to use that -- those concepts in
10 making my conclusions.
11   Q. And which cases were those?
12   A. The case that I mentioned in my report
13 and that I know a little about from having read is
14 Perfect 10 v. Google, Amazon.
15   Q. And any others?
16   A. That's -- nothing is coming to my
17 immediate mind. I know I mentioned that in my
18 report, so that's the one that is first in mind.
19 I'm sure I read other ones.
20   Q. Can you identify any of the other cases
21 that you relied upon in reaching your opinion that
22 Android is transformative other than Perfect 10 v.
23 Amazon and Google?
24   MR. KAMBER: Objection to form.
25   THE DEPONENT: I don't think I cite to